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EXAMINER

GENCO, BRIAN C

ART UNIT

PAPER NUMBER

2615

DATE MAILED: 02/14/2003

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary

Application No.

09/209,751

Applicant(s)

MATAMA, TORU

Examiner

Brian C Genco

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-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133).
- Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☐ Responsive to communication(s) filed on _____.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-10 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1-10 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on _____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
- Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
- 11) ☐ The proposed drawing correction filed on _____ is: a) ☐ approved b) ☐ disapproved by the Examiner.
- If approved, corrected drawings are required in reply to this Office action.
- 12) ☐ The oath or declaration is objected to by the Examiner.

Priority under 35 U.S.C. §§ 119 and 120

- 13) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. _____.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
- * See the attached detailed Office action for a list of the certified copies not received.
- 14) ☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. § 119(e) (to a provisional application).
- a) ☐ The translation of the foreign language provisional application has been received.
- 15) ☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. §§ 120 and/or 121.

Attachment(s)

- 1) ☒ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) ☐ Information Disclosure Statement(s) (PTO-1449) Paper No(s) _____.
- 4) ☐ Interview Summary (PTO-413) Paper No(s). _____.
- 5) ☐ Notice of Informal Patent Application (PTO-152)
- 6) ☐ Other: _____.

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The applicants arguments filed January 2, 2003 have overcome the 35 U.S.C. 102(e) rejection of claim 9.

Leone does not scan only scans the photographic film one time and then subsamples that image for display.

The applicants arguments filed January 2, 2003 have overcome the 35 U.S.C. 102(e) rejection of claims 1, 2, 7, and 8 and the 35 U.S.C. 103(a) rejection of claims 2-5, 6, 9, and 10.

Applicant argues that Leone only displays images at low resolution.

In response, examiner refers applicant to the section of Leone pointed out by applicant in their arguments, in particular column 5, lines 6-47. In this section Leone discloses the function of "fitting" the scanned image to the display with a maximum resolution. As an example of this function Leone discloses first subsampling a scanned image at a given frequency so as to maximize the resolution of the entire image on a display, examiner is defining this resolution to be a low resolution display. Leone then discloses performing a zooming operation on the displayed image wherein the subsampling frequency is changed so as to again maximize the resolution of the zoomed in portion of the image on the display, examiner is defining this resolution to be a high resolution display. Note that Leone further discloses in this section that if the resolution of the scanned image is less than that of the display a supersampling process may be performed. Also, as one skilled in the art would readily recognize, Leone implicitly discloses that if resolution of the display matches the resolution of the scanned image then the image will

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be displayed at its maximum resolution. Further note that applicant never claimed displaying an image at its maximum resolution, only at a low resolution and a high resolution.

Applicant argues that Leone does not disclose “the entire identical function” of claims 1, 2, 4, and 6 in regards to the “means-plus-function” language.

In response, with regards to claim 1 applicant discloses the claimed “display switching means” in the specification on page 16 in the 2nd full paragraph, wherein applicant discloses the display can display both a prescanned image and a “finely scanned image before and after ... red eye correction processing.” Leone discloses a user can zoom in on an image wherein, as described above, the display switches from a low resolution image to a high resolution image which is then subject to red eye correction processing, after which the user can then zoom back out again (column 4, lines 18-42).

With regards to claim 1 applicant discloses the claimed “designation means” in the specification on page 9, 1st full paragraph; page 17, 5th full paragraph – page 18 1st paragraph; and page 27, 2nd full paragraph, wherein these sections of the specification detail that the designation means should be preformed by the well known click-and-drag method of selecting an area on a display using a mouse. Leone, on the other hand, discloses the user simply designate a point on the screen when in the zooming mode and the display is then changed to center that point and zoom in by a predetermined amount (column 2, lines 54-61). As such, Leone does not meet the claim limitation afforded by the “means-plus-function” claim language and thus the 35 U.S.C. 102(e) rejection of claim 1 has been overcome and thus all depending claims, namely 2-10, have also been overcome. Note that Stokes does disclose the method of

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designating a portion of a scanned image to be displayed on a screen in a zoomed fashion for further processing using the click-and-drag technique disclosed by the applicant as noted in the rejections below.

With regards to claims 1 and 6 applicant discloses the claimed “red eye correction means” in the specification on page 14, 3rd full paragraph; page 17, 1st – 5th full paragraphs; page 18, 2nd full paragraph – page 19, 2nd full paragraph; page 27, 3rd full paragraph; and page 28, 3rd and 4th full paragraphs. Note that in claim 6 applicant further elaborates on the “red eye correction means” claimed in claim 1 with “image data take-out means,” “color transformation means,” and “image data replacing means.”

With regards to the “image data take-out means” applicant defines this in the specification as taking an area designated by the user from the output image memory and stores it in a work memory. Note that Leone discloses scanning an image at high resolution to create a “output image” which is stored in element 60 of Fig. 4 wherein examiner is defining this to be the “output image memory.” That image is then subsampled and various functions are applied to it including red eye correction wherein if the functions are applied to the satisfaction of the user they are saved in element 88 of Fig. 4 which examiner is defining to be the “work memory.”

With regards to the “color transforming means” applicant discloses, “The method of correcting the red eyes is not particularly limited and various known methods may be used.” As such any method of color transformation to correct for the red eye phenomenon is acceptable. Thus the method disclosed by DeLuca is acceptable.

With regards to the “image data replacing means” applicant defines this in the specification as replacing the area in the output image memory with the corrected image area of

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the work memory. Leone discloses taking the corrected image and applying it to the overall image as shown in element 90 of Fig. 4.

Note that the “image takeout means” and the “image data replacing means” is an implied part of any invention in the same field of endeavor as Leone, Stokes, Yamanouchi, and the present application because the scanned images are manipulated in order to provide quality prints, wherein if there was no “image takeout means” then if the user didn’t like the final results the image would have to be re-scanned thus taking up much more time as is readily apparent to anyone skilled in the art. Also, if there was no “image data replacing means” then any editing preformed by a user on a selected area would be worthless because it wouldn’t then be able to be applied to the image as a whole.

With regards to claims 2 and 4 applicant discloses the claimed means for selecting whether or not to perform processing based on either a users selections or by automatically determining it based on photographing information, as interpreted by the examiner, in the specification on page 26, 2nd full paragraph; page 30, 2nd full paragraph – page 31, 1st full paragraph; and page 32, last paragraph – page 33, first paragraph. Leone discloses the ability for the user to select whether or not to perform processing based on their assessment of the image (column 4, lines 24-37). Yamanouchi discloses the ability to automatically determine if processing of a certain function is possible based on data provided by the photographic film, or photographing information.

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Claims 1 and 7-10 are rejected under 35 U.S.C. 103(a) as being unpatentable over (USPN 5,596,346 in view of Leone et al) in view of (USPN 6,295,388 B1 to Stokes et al).

In regards to claim 1 Leone et al, herein Leone, discloses, "The present invention is preferably implemented as part of the user interface for the Digital Print System (column 3, lines 4-5, Leone)." Leone further discloses, "The present invention, as the user interacts with the display to zoom and pan, presents a display image 10 to the user on the CRT as graphically illustrated by FIGS. 1A-1D (column 3, lines 26-28, Leone)," or a "display for displaying the image carried by the image data at high resolution or low resolution," wherein the display is displaying the image at low resolution when first loaded into the display and at high resolution when the display zooms in on a particular area of the display. This also incorporates the claimed "display switching means for switching at least one portion or all portions of the image displayed on said display from the low resolution to the high resolution and vice versa" wherein the switching means is the disclosed zoom means for switching "from the low resolution to the high resolution" and the disclosed undo means for switching from the high resolution to the low resolution. Also note column 7, lines 18-20 wherein Leone further discloses switching from high resolution to low resolution. Leone further discloses, "The display image 10 (FIG. 1A) includes touch control "buttons" for zoom-in 12, zoom-out 14, pan 16, apply 18, and undo 20. These display operations and image processing functions are performed on the image displayed in the display (column 3, lines 34-38, Leone)," or "designation means for designating a region including an eye in the image of the lower resolution displayed on said display by said display switching means." The above is further illustrated with Leone disclosing, "The user (not shown) typically wants to check the image for artifacts, such as ... 'red-eye.' To do this the user needs

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to zoom-in and pan to the eyes of the subject 24 ... FIG. 1A illustrates that the user has already touched the zoom-in control 12 and has touched the image at a point 26 indicated by a '*' (column 3, lines 40-46, Leone)." as well as, "After the zoom-in and touch movement actions designated in FIG. 1A have been performed the display window 22, as illustrated in FIG. 1B, depicts an enlarged and shifted (panned) version of the original image. As illustrated, the point on the image designated by the touch point 26 in FIG 1A has been moved to the center of the display window 22 and the image has been zoomed-in by a predetermined amount (column 3, lines 54-61, Leone)." Leone further discloses, "As depicted in FIG. 1D on of the eyes of the subject 24 is now positioned in the center of the window 22 and the view port 32 is also centered on the eye as well as being of a size where only the area around the eye is defined as being within the view port 34. The user can now determine if the "red-eye" condition exists in the eye shown in the window 22. If the condition exists the user can activate a conventional process for correcting the artifact condition by touching the apply button 18. This will result in the portion of the source image 32 seen by the user in the window 22 (as defined by the view port 34) being processed (column 4, lines 23-31, Leone)," or "red eye correction means for correcting a red eye effect by subjecting the output image data of the eye in the region designated by said designation means to eye color transformation processing." In view of this and the above disclosures from Leone "said display switching means switches in such a way that at least the region designated by said designation means in the image is displayed on said display at high resolution before or after, or both before and after the region is processed by said red eye correction means."

Note that, as mentioned above, Leone does not disclose the limitations set forth by the "means-plus-function" claim language of the claimed "designation means." Stokes discloses the

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necessary click-and-drag method of selection in order to select an area for further processing as mentioned above and depicted in Figs. 2-5. Note that this method is very well known and established in the art so as to allow the user more variability in the selection and zoom amount in comparison to the method used by Leone. Therefore it would have been obvious to one of ordinary skill in the art at the time of the invention to have replaced Leone's designation means with Stokes' designation means in order to allow the user more variability in the selection and zoom amount.

In regards to claim 7 see examiners notes on the rejection of claim 1. Note the disclosed process of zooming-in on the eye before red-eye correction.

In regards to claim 8 see examiners notes on the rejection of claim 1. Leone further discloses, "The photographer will sometimes misplace the negatives and only retain the original print. In this situation the original print must be photographed or otherwise captured. This capturing can be done chemically or digitally (column 1, lines 26-30, Leone)," or "input image data of the image obtained by the optical photographing are image data which are read photoelectrically from an image on a photographic film that is photographed and then developed."

In regards to claim 9 Leone does not disclose inputting the "image carried on the photographic film" in both high resolution and low resolution. Instead Leone only inputs the image in high resolution and then subsamples that image to create a low resolution image.

Stokes et al, herein Stokes, discloses scanning an image in at a low resolution, identifying a portion to display at high resolution, scanning the image at high resolution and displaying the selected portion at a high resolution while still in the process of scanning the rest of the image at

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the high resolution (column 1, line 54 – column 2, line 27). Stokes discloses that this order of operation is advantageous over scanning an image at high resolution and then subsampling like Leone in that it can save the user time by being able to cancel the rest of the high resolution scan if the high resolution image displayed is deemed unacceptable by the user. Therefore it would have been obvious to one of ordinary skill in the art at the time of the invention to have used Stokes's scanning method in Leone's invention in order to save time.

In regards to claim 10 see examiners notes on the rejection of claims 1 and 8. Note that Leone discloses, "the original print must be photographed or otherwise captured (column 1, lines 28-29, Leone)," wherein "image data obtained directly by photographing a subject" falls under the category of being "otherwise captured." Also note that it is well know in the art and obvious to one skilled in the art to interchange taking photographic pictures using both photographic film and digital imaging devices such as CCD's.

Claim Rejections - 35 USC § 103

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

The factual inquiries set forth in *Graham v. John Deere Co.*, 383 U.S. 1, 148 USPQ 459 (1966), that are applied for establishing a background for determining obviousness under 35 U.S.C. 103(a) are summarized as follows:

1. Determining the scope and contents of the prior art.

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2. Ascertaining the differences between the prior art and the claims at issue.
3. Resolving the level of ordinary skill in the pertinent art.
4. Considering objective evidence present in the application indicating obviousness or nonobviousness.

Claims 2-5 are rejected under 35 U.S.C. 103(a) as being unpatentable over (USPN 5,596,346 in view of Leone et al) in view of (USPN 5,420,699 to Yamanouchi et al).

In regards to claim 2 see examiners notes on the rejection of claim 1. Note that the disclosed, "As depicted in FIG. 1D on of the eyes of the subject 24 is now positioned in the center of the window 22 and the view port 32 is also centered on the eye as well as being of a size where only the area around the eye is defined as being within the view port 34. The user can now determine if the "red-eye" condition exists in the eye shown in the window 22. If the condition exists the user can activate a conventional process for correcting the artifact condition by touching the apply button 18. This will result in the portion of the source image 32 seen by the user in the window 22 (as defined by the view port 34) being processed (column 4, lines 23-31, Leone)," or "means for selecting either one of execution or non-execution of processing by said display switching means, said designation means and said red eye correction means as a mode," whereby if the disclosed user doesn't detect the red-eye condition then non-execution of processing will be preformed. Leone does not disclose "means for automatically determining said either one of the execution and the non-execution of the processing from photographing information and means for selecting and indicating said either one of the execution and the non-execution of the processing."

Yamanouchi et al, herein Yamanouchi, discloses "a transparent magnetic recording layer is coated on the side opposite to a light sensitive surface of a film base of the film (column 3, lines 36-38, Yamanouchi)" depicted in Fig. 1 element B, as well as "image pattern B includes

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information of conditions necessary for printing process such as weather in the course of photographing, time of photographing and whether a strobe was used or not (column 3, lines 46-50, Yamanouchi),” and finally that “optical information sensor S1 reads the aforementioned image pattern B first, the data thereof are sent to an optical information analyzing unit, and for example, filter f1 is selected so that color correction corresponding to the aforesaid photographing conditions may be made (column 4, lines 46-50, Yamanouchi),” wherein the disclosed optical information analyzing unit automatically determines processing functions, such as color correction or red-eye correction based on the information recorded on image pattern B. Therefore it would have been obvious to one of ordinary skill in the art at the time of the invention to have “at least one of means for selecting either one of execution and non-execution of processing by” either user input commands as disclosed by Leone or by automatic determination means based on pre-recorded information about the photographing conditions as disclosed by Yamanouchi.

In regards to claim 3 see examiners notes on the rejection of claim 2. Yamanouchi discloses “image pattern B includes information of conditions necessary for printing process such as weather in the course of photographing, ...and whether or not a strobe was used (column 3, lines 45-49, Yamanouchi),” wherein all of the claim limitations listed in claim 3 are necessary for determining the possibility of red-eye occurring in a picture and are therefore necessary for printing process. It would have been obvious to one of ordinary skill in the art at the time of the invention to record information about the photographing conditions as disclosed in Yamanouchi in order to allow more information to the user of Leone’s invention “for the purpose of efficient printing (column 1, line 57, Yamanouchi).”

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In regards to claim 4 Yamanouchi discloses recording information such as whether a strobe was used or not as noted above wherein it is very well known and established in the art that if a strobe or flash was not used then there is no possibility of having red-eye defects in a picture and as noted above in the rejection of claim 2 the determination means would note that there is not possibility for red-eye to have occurred in the picture and therefore would not do red-eye processing on the picture or "means for determining the non-execution of the processing."

In regards to claim 5 see examiners notes on the rejection of claims 3 and 4.

Claim 6 is rejected under 35 U.S.C. 103(a) as being unpatentable over (USPN 5,596,346 in view of Leone et al) in view of (USPN 5,420,699 to Yamanouchi et al) in further view of (USPN 6,407,777 to DeLuca).

In regards to claim 6 Leone and Yamanouchi disclose the red-eye removal processing however do not disclose how this processing takes place. DeLuca discloses, "FIG. 5 shows combination pupil/iris pixels which have color components of the red-eye phenomenon ... The invention modifies these pixels by separating the color components associated with the red-eye, modifying color of the separated color components and then adding back modified color to the pixel (column 4, lines 44-50, DeLuca)," or "image take-out means," "color transform means," and "image data replacing means." Therefore it would have been obvious to one of ordinary skill in the art at the time of the invention to have used DeLuca's red eye processing method so as to fully define the inventions of Leone and Yamanouchi.


Conclusion

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Any inquiry concerning this communication or earlier communications from the examiner should be directed to Brian C. Genco who can be reached by phone at 703-305-7881 or by fax at 703-746-8325. The examiner can normally be reached on Monday thru Friday 8:00am to 4:00 pm.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Andrew Christensen can be reached on 703-308-9644. The fax phone numbers for the organization where this application or proceeding is assigned are 703-872-9314 for regular communications and 703-872-9314 for After Final communications.

Any inquiry of a general nature or relating to the status of this application or proceeding should be directed to the technology center 2600 customer service office whose telephone number is 703-306-0377.



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